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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09 941,343 | 08 29 2001 | Seng Tan | 1511(Wright) | 5856 |

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EXAMINER

LISH, PETER J

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 07 03 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,343

Applicant(s)

TAN ET AL.

Examiner

Peter J Lish

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 04/18/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-11 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-5, 10, 11 and 13-24 is/are rejected.
- 7) ☐ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's arguments filed 18 April 2003 have been fully considered but they are not persuasive. Applicant argues that lanthanum series oxides are not disclosed in the prior art of reference. This limitation, however, is located in claims 6-9, but not in any of claims 1-5 or 11.

Regarding the amendment to claim 1, the addition of the limitation "eliminating the stabilization step" does not overcome the rejection drawn toward the indefiniteness of the claim. It remains unclear as to whether a stabilization step occurs, given that the language of claim 1 recites "shortening or elimination of said stabilizing step" as well as "stabilizing and carbonizing said carbon precursor".

Regarding applicant's arguments regarding claim 23, it is noted that while the use of metal chlorides is taught in the example of Hamling, the metal chlorides are converted to metal oxides, yielding a carbon fiber containing metal oxides.

The rejections of claims 6-9 and 17-20 under 35 U.S.C. 112, second paragraph, are withdrawn in response to the amendment.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 states that in a process including the steps of forming a carbon precursor, and stabilizing and carbonizing said carbon precursor. It later states that the catalyst permits

elimination of the stabilization step. Claims 1 and 12 are thus inconsistent in the use of a stabilization step. Additionally, the use of the term "at the atomic level" in claims 1 and 12 is unclear.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 states that the catalyst is selected "from the group consisting of... iron oxide". Because iron oxide is not a lanthanum series oxide, it is indefinite as to the dependency of claim 10 upon claim 9, which recites the limitation that the catalyst oxide is a lanthanum series oxide.

Claims 13-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 13-22 are dependent upon canceled claim 12.

Claim Rejections - 35 USC § 102

Claims 1-3, 10, 13-14, 21, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tachibana (USPN 4,970,189).

Tachibana is applied as in the previous office action. No difference is seen between the product of Tachibana and that of the instantly claimed invention.

Claims 4-5 and 15-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tachibana.

The rejection of the previous office action is maintained in its entirety and incorporated herein by reference.

Claims 1,3, 11 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawaki et al. (USPN 4,840,762).

The rejection of the previous office action is maintained in its entirety and incorporated herein by reference.

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Hamling (USPN 3,385,915).

The rejection of the previous office action is maintained in its entirety and incorporated herein by reference.

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Ikegami et al. (USPN 4,362,646).

Ikegami et al. teaches a carbon fiber containing iron oxide in a weight percentage of between 0.01 and 1 wt % (column 8, lines 15-26). No difference is seen between the carbon fiber of Ikegami et al. and that of the instantly claimed invention.

Allowable Subject Matter

Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Lish whose telephone number is 703-308-1772. The examiner can normally be reached on 9:00-6:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-305-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



PL
June 26, 2003

**STUART L. HENDRICKSON
PRIMARY EXAMINER**